

Amendments to the claims:

Claim 1 (currently amended): A method for treating a patient having Obstructive Sleep Apnea Syndrome (OSAS) with positive airway pressure (PAP) comprising the steps of:

- a) creating a customized single-piece, dual arch airway orthotic having an elongated slide extending away from said orthotic in an anterior direction, said orthotic further comprising upper and lower dental arches; the spacing between said arches is occupied with an acrylic material that forms a seal when positioned within a patient's mouth which obturates the oral cavity; each of said arches made of an elastomeric material according to dental impressions taken of the patient;
- b) positioning said using said airway orthotic within the patient's mouth to obturate the oral cavity via an acrylic seal between the upper and lower dental arches;
- c) retaining the obturation of the patient's oral cavity while said patient sleeps~~upper~~
and lower dental arches in elastomeric material via a snap fit;
- d) applying PAP via the nasal passages from tubing which is supported from said airway orthotic positioning a PAP Tubing Retention Platform upon said elongated slide, said platform comprising a pair of apertures oriented in a direction substantially perpendicular to said slide;
- e) providing a pair of tubes; a portion of each tube retained in a fixed position within a respective aperture;
- f) connecting one distal end of each of said tubes to a source of positive airway pressure;
- g) positioning the other end of each of said tubing within a respective nasal cavity;
- h) disposing a nasal pillow about each of said other ends of respective tubing to form a seal between said respective tube and the interior wall of the nasal cavity.
- i) applying positive airway pressure from said source of positive airway pressure, through said tubing and through said nasal cavities.

Claim 2 (currently amended): The method of Claim 1) ~~and where additionally~~
~~comprising a said~~ single-piece, dual arch airway orthotic ~~whereby the comprises a lower~~

(mandibular) arch ~~which is preferably located or~~ placed into a neutral centric position with respect to the maxilla.

Claim 3 (currently amended): The method of Claim 1) ~~and additionally comprising utilization of variable width, further comprising the steps of determining the patient's nasal angulation and nasal width; and based upon said nasal angulation and said nasal width, selecting a PAP Tubing Retention Platforms for retaining said tubing in position while the patient sleeps which correlate with varied patient nose and/or nasal widths.~~

Claim 4 (canceled).

Claim 5 (currently amended): The method of Claim 3) ~~and additionally comprising customization of PAP Tubing angulation by heating where the PAP Tubing Retention Platform comprises acrylic material and said Platform can be customized to the patient's nasal angulation and nasal width by applying a sufficient level of heat to induce deformation and while in a deformable state, said Platform is appropriately altered for customization.~~

Claim 6 (currently amended): The method of Claim 5) where ~~the means of said~~ heating is ~~performed via~~ by a micro torch.

Claim 7 (canceled).

Claim 8 (currently amended): The method of Claim 1) ~~and additionally comprising the step of obtaining, utilization of a three-dimensional bite registration for determining the proper single-piece, dual arch airway orthotic to be created.~~

Claim 9 (currently amended): The method of Claim 8) ~~and additionally utilizing a where said three-dimensional bite registration that is created using by a neuromuscular technique such as Transcutaneous Electrical Nerve Stimulation (TENS).~~

Claim 10 (currently amended): The method of Claim 8) ~~whereby the~~ where said three-dimensional bite registration captures the mandibular position with respect to the maxilla in neutral centric position.

Claim 11 (currently amended): A device which obturates the oral cavity of a patient during treatment of Obstructive Sleep Apnea Syndrome (OSAS) to maintain the patient's mandible in a neutral centric position consisting of comprising:

- a) a single piece, dual arch oral appliance having upper and lower dental arches, said appliance having with a its buccal surface and lingual surface made of an hard acrylic material and the surfaces of said upper and lower dental arches which contact the teeth of the patient made of exterior and an interior lined with an elastomeric material;
- b) a pair of positive airway pressure (PAP) tubing;
- ~~bc) a Acrylically bonded Variable Length Slide fixedly connected to said dual arch oral appliance which supports a PAP Tubing Retention Platform that can vary the width of PAP Tubing Holes to correspond to varying nasal and nare widths;~~
- d) a PAP Tubing Retention Platform slidably mounted upon said slide, said Platform comprising a pair of apertures sized for receiving a respective one of said pair of PAP tubing; and,
- e) where the mandible is aligned by said upper and lower dental arches to be located in a neutral centric position.

Claim 12 (canceled).

Claim 13 (currently amended): The device ~~in~~ of Claim 11) wherein said single piece, dual arch oral appliance has the upper and lower dental arches ~~components~~ sealed with ~~hard~~ acrylic.

Claim 14 (canceled).

Claim 15 (currently amended): The device of Claim 11) ~~and additionally comprising a~~
~~the use of Transcutaneous Electrical Nerve Stimulation (TENS) means for locating the~~
~~mandible in a neutral centric position to create said preferred position of the mandible~~
~~utilizing Transcutaneous Electrical Nerve Stimulation (TENS).~~

Claim 16 (currently amended): The device of Claim 11) whereby said PAP Tubing
Retention Platform can be positioned on said ~~Variable Length Slide~~ such that said PAP
Tubing can be positioned antero-posteriorly within a range of 5mm to 30mm from the
labial surface of the maxillary anterior teeth.

Claim 17 (currently amended): The device of Claim 11) whereby said variable width
PAP Tubing Retention Platform is composed of an acrylic material that is at least 3mm
thick.

Claim 18 (currently amended): The method of applying positive airway pressure (PAP) to
nasal passages of a patient for the purpose of treating Obstructive Sleep Apnea Syndrome
(OSAS) without the use of a hook, chin stabilizer, or chin strap comprising the steps of:

- a) Fabricating an dual arch oral appliance for obturating the oral cavity of the
patient thereby preventing mouth venting of PAP, said oral appliance further
having which has an anterior, extraoral Slide affixed thereto-said oral appliance;
- b) positioning said oral appliance within a patient's mouth where said oral
appliance is aligned with the patient's upper and lower dental arches to maintain
the patient's mandible in a substantially neutral centric position without
protrusion of the mandible;
- c) providing a pair of PAP tubing and connecting one distal end of each of said
tubing to an external source of positive airway pressure;
- b)d) Mounting a PAP Tubing Retention Platform to said slide, said PAP
tubing operatively connected to said PAP Tubing Retention Platform to said
extraoral Slide;

- e) inserting the other end of each tubing into a respective nasal cavity for delivery of air from said external source. Varying the lateral width of the PAP Tubing Holes in said PAP Tubing Retention Platform to correspond with varying width noses and nares; and
- f) sealing the patient's nares with nasal pillows.

Claim 19 (currently amended): The method of Claim 18) and further comprising the positioning of said PAP Tubing Retention Platform and said PAP Tubing Holes anterior-posteriorly to a position within a range of 5mm to 30mm from the labial surface of the maxillary anterior teeth.

Claim 20 (currently amended): The method of Claim 18) wherein said PAP Tubing Retention Platform is composed of an acrylic material that is at least 3mm thick.

Claim 21 (currently amended): The method of Claim 20) wherein said acrylic material can be adjusted to optimize the desired angulation via application of heat.

Claim 22 (currently amended): The method of Claim 18) wherein said PAP Tubing Retention Platform is vacuum formed ~~subsequent to heating of the material.~~

Claim 23 (currently amended): The method of Claim 18) wherein said PAP Tubing Retention Platform is created via injection molding.

Claim 24 (canceled).

Claim 25 (currently amended): The method of Claim ~~18~~²⁴) where said obturator is ~~composed of, comprises~~ an exterior surface made from an hard acrylic material lined with an elastomeric material.

Claim 26 (canceled).

Claim 27 (canceled).

Claim 28 (currently amended): The method of Claim 18) wherein said ~~Variable Length~~ anterior extraoral ~~Slide~~ is acrylically bonded to the anterior surface of said oral appliance without the use of metal parts.

Claim 29 (currently amended): The method of Claim 18) where said oral appliance is composed of a hard exterior acrylic and ~~lined~~ deposited with an elastomeric material.

Claim 30 (canceled).

Claim 31 (currently amended): The method of Claim ~~1830~~ where ~~fabrication of~~ said oral appliance ~~is fabricated from~~ utilizes a three-dimensional bite registration for orienting the position of the upper and lower dental arches.

Claim 32 (currently amended): The method of Claim 31) where said bite registration is produced utilizing Transcutaneous Electrical Nerve Stimulation (TENS).

Claim 33 (currently amended): The ~~A~~ method ~~of~~ for treating a patient with Obstructive Sleep Apnea Syndrome (OSAS) comprising the steps of:
providing a dual arch oral appliance for placement substantially within the oral cavity of a patient, a retention platform operably connected to said oral appliance for positioning anteriorially of the patient's mouth, and a pair of air supply tubes retained by said retention platform;
positioning said dual arch oral appliance within a patient's oral cavity;
engaging one arch of the oral appliance to the patient's mandibular arch and the other arch of the oral appliance to the patient's maxillary arch by the patient closing said oral cavity, said engagement, utilizing a dual arch oral appliance without protrusion of the mandible, and locating such that the mandibular arch is located in a neutral centric position with respect to the maxillary arch
positioning the end of each tube within a respective nostril;

connecting the distal ends of each of said tubes to an air supply source; and
delivering an air flow to the patient from said air supply source, through said pair of
tubes.

Claim 34 (currently amended): The method of Claim 33) and further comprising the steps
of supporting and stabilizing of PAP-Tubing connected to from said dual arch
oral appliance.

Claim 35 (currently amended): The method of Claim 34) and additionally comprising the
additional steps of ~~location of~~ selecting a PAP Tubing Retention Platform appropriately
sized for said patient's nasal features, connecting said PAP-Tubing to through variable
width said PAP Tubing Retention Platform, and sealing both patient's nares, each nare
sealed using a nasal pillow operably connected to a portion of respective tubing
positioned within a nostril, whereby said PAP-Tubing Holes correspond to varying nasal
and nare widths.

Claim 36 (currently amended): The method of Claim 33) and additionally comprising the
step of obtaining capture of said a three-dimensional bite registration in a neutral centric
position via Transcutaneous Electrical Nerve Stimulation (TENS).

Claim 37 (currently amended): The method of Claim 33) and additionally comprising the
step of obtaining capture of said a three-dimensional bite registration in a neutral centric
position via ~~conventional techniques such as~~ manual physical manipulation of the
mandible by ~~at~~ the clinician.

Claim 38 (new): The method of Claim 9 where said neuromuscular technique is
Transcutaneous Electrical Nerve Stimulation (TENS).

Claim 39 (new): The method of Claim 18 further comprising the step of selecting an
appropriate size PAP tubing Retention Platform to correspond to the patient's nasal
width.